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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,509	02/21/2002	Takanari Takagaki	111569	4709
25944	7590	01/26/2004		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER OCAMPO, MARIANNE S	
			ART UNIT 1723	PAPER NUMBER

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/078,509	TAKAGAKI, TAKANARI
	Examiner Marianne S. Ocampo	Art Unit 1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- Responsive to communication(s) filed on 17 October 2003.
- a)  This action is FINAL.      2b)  This action is non-final.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- Claim(s) 1-8,15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-8,15 and 17 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- The specification is objected to by the Examiner.
- The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a)  The translation of the foreign language provisional application has been received.
- Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- Notice of References Cited (PTO-892)
- Notice of Draftsperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statement(s) (PTO-1449) Paper No(s) filed on 11/11/02 6)  Other: \_\_\_\_\_

11/11/02

## DETAILED ACTION

### *Specification*

1. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. *In particular, the essential material which is being incorporated based on the foreign applications, JP 2001-071208 and 2001-355018 should be presented in the form of an amendment.* The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yanagihara et al. (US 5,558,689).

4. With regards to claim 1, Yanagihara et al. disclose a three-dimensional non-woven fabric (G, 250 in figs. 25 - 26) comprising:

- at least one first portion (214-215, 217, 221) formed from semi-molten fibers (such as polyimide fibers) placed on a surface of a (catapillar) mold, and
- at least one second portion (222-223) formed from semi-molten fibers hanging down from the at least one first portion in a tangled state, whereby the at least one second portion is formed in wall-shape, wherein the three-dimensional non-woven fabric is formed by setting (compressing) the semi-molten fibers onto the mold, as in cols. 15 – 16 and figs. 25 - 29. In this particular rejection, Yanagihara et al. have taught the product which is being the claimed invention, but not

the exact method of how the prior art/product of Yanagihara et al. is produced particularly, which could be by an alternative or different method (i.e. not spinning the fibers onto a mold). However, it is considered that although the process of creating the product of Yanagihara et al. is different, the fabric disclosed/taught by Yanagihara et al. is considered to be the same, or at least an obvious variation of the claimed invention (which is a 3-D non-woven fabric).

Claim 1 is considered to be a product by process claim. The patentability of a product by process claim is based upon the product itself, even though the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious from the product of the prior art, even if the product of the prior art had been made by a different process. *See In re Thorpe, et al., No. 85-1913 (11-21-85) 227 USPQ pages 964 – 966.*

5. Regarding claim 2, Yanagihara et al. have disclosed the limitations of claim 1 above. Yanagihara et al. further disclose the three-dimensional non-woven fabric being a filter having a filtering portion, and the filtering portion includes a plurality of wave-shaped portions, with the at least one second portion crossing the wave-shaped portions, as in figs. 25 – 29.

6. Concerning claim 3, Yanagihara et al. have disclosed the limitations of claim 1 above. Yanagihara et al. also disclose a plurality of columnar portions (defined by 220, 222, 223) being formed by the at least one second portion which are connected to each other, as in figs. 25- 29.

7. With respect to claim 4, Yanagihara et al. have disclosed the limitations of claim 3 above. Yanagihara et al. further disclose the plurality of columnar portions having a taper formed by the at least one second portion, as in figs. 25 – 29.

8. Concerning claims 5 & 6, Yanagihara et al. have disclosed the limitations of claims 4 and 3, respectively above. Yanagihara et al. disclose each of the plurality of columnar portions having a sidewall and being connected to each other with their sidewalls shared with each other, as in figs. 25 - 29.

9. With regards to claim 7, Yanagihara et al. have disclosed the limitations of claim 3 above. Yanagihara et al. also disclose each of the plurality of columnar portions having an opening and being connected to each other at peripheral edges of the openings, as in figs. 25 - 29.

10. Concerning claim 8, Yanagihara et al. have disclosed the limitations of claim 3 above. Yanagihara et al. further disclose the plurality of columnar portions being formed by the at least one second portion as columnar portions having one respective end closed, and the columnar portions are connected to each other so that opening sides and closed sides of adjacent columnar portions are located opposite to each other, as in figs. 25 – 29.

11. Regarding claim 15, Yanagihara et al. disclose a filter comprising a three dimensionally non-woven fabric (G, 250) manufactured by preparing a mold including a portion from which fibers are hanged and setting semi-molten fibers onto the mold so that semi-molten fibers hang down from the portion of the mold to form a hanging fiber wall, as in cols. 15 – 16 and figs. 25 - 29. Like in the rejection of claim 1 above, Yanagihara et al. have taught the product which is being the claimed invention, but not the exact method of how the prior art/product of Yanagihara et al. is produced particularly, which could be by an alternative or different method (i.e. not spinning the fibers onto a mold). However, it is considered that although the process of creating the product of Yanagihara et al. is different, the fabric disclosed/taught by Yanagihara et al. is considered to be the same, or at least an obvious variation of the claimed invention (which is a 3-D non-woven fabric).

Claim 15 is considered to be a product by process claim. The patentability of a product by process claim is based upon the product itself, even though the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious

from the product of the prior art, even if the product of the prior art had been made by a different process. *See In re Thorpe, et al., No. 85-1913 (11-21-85) 227 USPQ pages 964 – 966.*

12. With respect to claim 17, Yanagihara et al. disclose a filter comprising a three dimensional non-woven fabric (250, G) manufactured by a mold including a member from which semi-molten fibers are hanged and a forming portion unto which a main body of the 3-dimensional non-woven fabric is formed from semi-molten fibers. Like in both claims 1 and 15 above, Yanagihara et al. have taught the product which is being the claimed invention, but not the exact method of how the prior art/product of Yanagihara et al. is produced particularly, which could be by an alternative or different method (i.e. forming the 3-D non-woven fabric from spun fibers). However, it is considered that although the process of creating the product of Yanagihara et al. is different, the fabric disclosed/taught by Yanagihara et al. is considered to be the same, or at least an obvious variation of the claimed invention (which is a 3-D non-woven fabric).

Claim 17 is considered to be a product by process claim. The patentability of a product by process claim is based upon the product itself, even though the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious from the product of the prior art, even if the product of the prior art had been made by a different process. *See In re Thorpe, et al., No. 85-1913 (11-21-85) 227 USPQ pages 964 – 966.*

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 3,210,229 (Feine), 5,051,118 & 4,008,060 (both to Andreae), 6,409,805B1 (Beier et al.), 3,274,759 (Bell Jr.), 5,505,852 (van Rossen), 4,954,255 (Müller et al.), 2,227,385 (Benedict), 4,799,944 (Dixon et al.), 5,888,262 (Kähler) and 5,792,229 (Sassa et al.).
  
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (571) 272-1144. The examiner can normally be reached on Tuesdays and Thursdays to Fridays from 8:30 A.M. to 4:30 P.M..
  
15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

*M.S.O.*  
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